IN THE SPECIFICATION

1. Please amend the paragraph starting on page 5, line 4 of the application as follows:

Prior art Figure 1C presents several problems associated with the conventional management of assigned fingers. The first problem deals with thrashing. The second problem deals with unnecessary latency. In step 1002, the only criteria by which fingers are deassigned is a single threshold for combining the signal. ~~This single threshold is shown in prior art Figure 1B as threshold 126.~~ By using only a single threshold, third multipath signal 106c is immediately deassigned, per step 1004, as soon as it fails the threshold ~~126, e.g., at time 122a~~. Because of this limitation, one of the demodulating fingers must now wait for the searcher to identify a new multipath signal to be assigned, e.g., per step 1006. This latency ~~is shown as the delay 128 between time 122a and 122b,~~ occurs where third pilot 106c is deassigned and second multipath signal 106b is assigned.

2. Please amend the paragraph starting on page 14, line 1 of the application as follows:

Hardware section 220 of Figure 2 includes an antennae 202, a transceiver 204, a searcher 224, and a rake receiver 226. The antennae 202 is coupled to the transceiver 204 which in turn is coupled to rake receiver 226 and searcher 224. Searcher 224 and rake receiver 226 are both coupled to processor 214 and memory 216. Rake receiver 226 includes multiple demodulation paths, also known as demodulating fingers or demodulators, 221-223. Each finger 221-223 is coupled to transceiver 204 so that it may independently identify and demodulate its respective multipath signal based upon its time of arrival. Rake receiver is coupled to subsequent hardware, not shown in Figure 2, that is well known in the art for further processing of the signals. The output of demodulating fingers are coherently combined by a diversity combiner 225 to produce maximum SNR. By using a combination of hardware 220 and firmware 210, the present invention provides efficient and flexible management of multipath signals for efficient use of demodulators, as described more fully hereinafter.

3. Please amend the paragraph starting on page 15, line 10 of the application as follows:

Figure 3 also shows a second SNR threshold, multipath rejection threshold (T_REJECT) 328, which represents the threshold for which the multipath management will consider a REJECT operation for the multipath signal in question. In conjunction with the T_REJECT 328 threshold, the present embodiment also shows the number threshold of measurement for rejection (N_REJECT) threshold 324 that represents a time threshold over which the strength of the signal must be below T_REJECT for the multipath REJECT operation to proceed. As shown in Figure 3, fourth multipath signal 106d does not satiate [[s]] both these thresholds as shown by time span 2 342. By using a time threshold for accepting and/or rejecting a multipath signal with respect to the demodulation and combining operations, the present invention essentially provides a low pass filtering for the signal evaluation. By doing so, the present invention limits the rate of unnecessary assignment to noise signal and unnecessary deassignment of demodulating fingers from a perturbating but otherwise strong multipath signal without causing thrashing. While the present embodiment utilizes both a SNR threshold and a time threshold to consider a multipath ACCEPT operation for the multipath signal, the present invention is well-suited to using only a SNR threshold.

4. Please amend the paragraph starting on page 16, line 25 of the application as follows:

Figure 4 also shows how multipath signals are categorized, e.g. promoted and demoted, to and from specific states. The [[a]] column labeled promotion 410 [[420]] provides a process whereby a multipath signal may be promoted to, or categorized as, a certain state. Conversely, a column labeled demotion 440 provides a process whereby a multipath signal may be demoted from a certain state. While the present embodiment provides a specific process for categorizing a signal with a state, the present invention is well suited to using a wide variety of processes and methods adaptable to specific applications.

5. Please amend the paragraph starting on page 17, line 7 of the application as follows:

The process of assigning a state for the present embodiment, shown in promotion column 410 [[420]], starts with a searcher signal input 420 from a hardware portion 462 of a communication device. Figure 2 provides one embodiment of hardware that implements input 420, where antennae 202 and transceiver 204 and searcher combine to provide a multipath signal (signal).